

ABSTRACT OF THE DISCLOSURE

A system which enables fuel cells to be activated at a working point of high energy conversion efficiency. A control unit calculates a required output of an inverter from an input accelerator travel. The control unit specifies an output electric current-output voltage characteristic corresponding to a gas flow rate, obtains a point of highest energy conversion efficiency on the specified characteristic to specify the point as a working point of fuel cells, and computes an output electric power of the fuel cells at the specified working point. The control unit determines an output voltage required to a battery, based on a difference between the calculated required output of the inverter and the computed output electric power of the fuel cells and a state of charge of the battery. The control unit controls a DC-DC converter and regulates the output voltage of the DC-DC converter, so as to cause the battery to generate the output voltage thus determined. The control unit subsequently controls the inverter, so as to cause a motor to consume electric power corresponding to the required output.